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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,019	10/11/2005	Guisheng Yang	187141/US	1322
25763 7590 08/21/2008 DORSEY & WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT SUITE 1500 50 SOUTH SIXTH STREET MINNEAPOLIS, MN 55402-1498				
EXAMINER WOODWARD, ANA LUCRECIA				
ART UNIT 1796		PAPER NUMBER		
MAIL DATE 08/21/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/553,019

**Applicant(s)**

YANG ET AL.

**Examiner**

Ana L. Woodward

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)  
Paper No(s)/Mail Date 10/11/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 11-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 11 and 20, it is unclear as to what is meant by “matrix” nylon. The term is indefinite as to scope and meaning.

The format of claims 11 and 20 is indefinite in that said claims contain more than one sentence.

In claims 11 and 20, formulae (II), (III) and (IV) are indefinite in that no meaning is set forth for subscript “p”.

In claims 11 and 20, the awkward language “may be substituted with C1-4 alkyl optionally” is confusing and not understood.

In claims 11 and 20, it is unclear if or how the matrix nylon distinguishes over the long-chain nylon prepared by the homopolymerization or copolymerization of amino acid (III) wherein “w” is less than or equal to 7 and less than or equal to 11.

In claims 11 and 20, it is unclear if or how the matrix nylon distinguishes over the long-chain nylon prepared by the homopolymerization or copolymerization of amino acid (IV) wherein “u” and “v” are less than or equal to 5 and less than or equal to 11.

In claim 11, it is unclear as to what is meant by “has a very good interface combination”.

In claim 12, there is no express antecedent basis for “used as toughening agent”.

In claims 13 and 22, the language “said corresponding amino acid is” is confusing.

In claims 13 and 22, “poly(telephthaloyl-2,2,4-trimethyl hexamethylene diamine)” and “poly(3-t-butyl-hexanedioyl heptamethylene diamine)” are not art-recognized.

In claims 13 and 22, it is unclear as to what is intended by the qualifier “co-condensation”.

In claims 15 and 24, it is unclear if or how the objectionable term “such” limits the recited processes.

In claims 19 and 28, it is unclear as to what is meant by “precise” parts.

In claim 20, it is unclear as to how the recitation “this toughened nylon is prepared by the polymerization of said cyclic lactam” further limits the embodiment utilizing the corresponding amino acid.

***Claim Rejections - 35 USC § 102/103***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-15, 19-24 and 28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 4,714,718 (Horn et al).

Horn et al disclose nylon moldings having high impact strength obtained by activated alkaline polymerization of caprolactam, reading on presently claimed cyclic lactam, in the presence of an amorphous or partially crystalline polycondensate which has a solubility of not less than 5% by weight in caprolactam at 120 C, reading on presently claimed long-chain nylon.

The examples provide various compositions meeting the requirements of the present claims both in terms of the types of materials added and their contents. Given the similarity of materials used, their contents and their method of preparation to those presently claimed, it is reasonably believed that the compositions of the reference would inherently meet all the characteristics governing applicants' toughened nylon. The onus is shifted to applicants to establish that the product of the present claims is not the same as or obvious from that set forth by the reference.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ana L. Woodward/  
Primary Examiner  
Art Unit 1796